



Devine Tarbell & Associates, Inc.
Consulting Engineers, Scientists, & Regulatory Specialists

Lyle N. Tracy, P.E.
Senior Geotechnical Engineer

Education

B.S., Civil Engineering, 1982, University of
Maine, Orono, Maine

Registrations and Professional Affiliations

Professional Engineer: Maine
American Society of Civil Engineers
Association of State Dam Safety Officials

1.3 Environmental - Specialty Areas

Mr. Tracy has considerable experience in the investigation, assessment, and remedial design of solid, hazardous and special waste sites. His experience includes: development and performance of site assessments and remedial investigations, performance of contamination assessments, development of feasibility studies for remediation, and development of remedial designs. His investigation and design experience also includes design of new solid waste landfill facilities and evaluation of the performance of existing solid waste facilities. Mr. Tracy has developed and implemented construction monitoring and QA/QC programs for both solid and hazardous waste designs. His solid/hazardous waste experience involved UST and bulk fuel AST petroleum sites, fuel and solvent spill and leak sites, and hazardous waste landfills. Evaluation, design, and construction applications have included soil-bentonite slurry wall technology, waste stabilization, soil/geosynthetic containment systems (liner and cap systems), free-product recovery systems, contamination removal, and evaluation of settlement at hazardous waste facilities.

2.2 Engineering - Hydroelectric - Detailed Design/Construction Monitoring

Mr. Tracy is experienced in geotechnical evaluation, design, and construction of hydroelectric projects. His geotechnical design experience includes coordination and supervision of field investigations, earth dam and embankment design, slurry wall cutoff walls, seepage/drainage control evaluation and design, stability analyses, and piping assessments. Mr. Tracy has practical experience with successfully remediating geotechnical related problems during construction, including compaction difficulties, control of excessive seepage, and trouble-shooting for slurry wall applications. He has developed and implemented QA/QC programs for geotechnical aspects for a variety of hydroelectric projects.

3.1 and 3.2 Engineering - Thermal - Studies and Detailed Design/Construction Monitoring

Mr. Tracy has considerable experience in geotechnical engineering evaluation, design, and construction monitoring of industrial systems, predominantly at power system facilities and pulp and paper plants. He has been the lead and contributing geotechnical engineer for industrial foundation projects, and evaluated foundation conditions for numerous heavily loaded and settlement sensitive structures, including turbine generators, power boilers, recovery boilers, precipitators, paper machines, lime kilns, ring cranes, and various other ancillary structures. Mr. Tracy has been involved in the analysis, load testing, and production installation of deep foundation system that have utilized H-piles, micro-piles, and rock anchors for support/resistance of high compression, tensile, and lateral loading conditions.

4.0 Geotechnical Engineering Services

Mr. Tracy has 17 years of experience solving geotechnical engineering problems for design and construction of a variety of industrial, commercial, hydroelectric, and governmental facilities. He has extensive experience in the development, coordination, and performance of field investigations, geotechnical evaluations, and design. His field investigation experience includes soil and rock drilling using various methodologies, test pits, installation of shallow and deep groundwater monitoring wells, pneumatic piezometer installation, bedrock packer testing, geo-environmental soil and water sampling, plate load testing, pile load testing, slope inclinometer installation, and slope movement interpretation. His design, design evaluation, and construction expertise involves a variety of mainstream geotechnical and specialty areas within the geotechnical engineering discipline. Specifically, his experience involves shallow and deep foundations systems, rock anchors, embankment design and stability evaluations, slurry walls, braced excavations, retaining walls, compaction grouting and jet grouting soil stabilization, wick drains, geosynthetics, drainage/dewatering systems, landfill waste stabilization, and landfill liners and caps. Mr. Tracy has prepared design documents and monitored construction for geotechnical aspects of a variety of industrial, commercial, hydroelectric, and environmental-related projects.

5.0 Licensing/Regulatory

Mr. Tracy has participated as a geotechnical engineering discipline lead on several multi-disciplinary projects that have included environmental permitting. He has lead geotechnical efforts on projects to obtain State Site Location of Development Permits, site relicensing permits, and remedial design construction permits for the closure of hazardous and special waste sites. He was responsible for the soils, geological, blasting, and groundwater protection aspects of Site Location of Development Permits, and was responsible for design of geotechnical components of projects in which remedial design and site relicensing were sought.

Specialized Training and Certifications

Troxler Nuclear Training, 1985, 1997 refresher course
OSHA 40 Hour Hazardous Waste Safety Training, 1988
OSHA 8 Hour Hazardous Waste Safety Refresher Training, yearly 1989-2000

Technical Papers

Tracy, L.N., R.A. Koster, S.R. Settlemire, R. Stalford. "Flyash Stabilization of Sludge in a Landfill". Proceedings of the 1994 TAPPI International Environmental Conference, Book 1, April 1994, pp 97-109.

Tracy, L.N., K.H. LaMarre. "Remedial Design of a Containment System for the U.S. Navy, Orion Street Landfill". Proceedings of the Practical Application of Soil Barrier Technology, 1994 Technical Seminar, Sponsored by Maine Section ASCE, Maine Dept. of Environmental Protection, and University of Maine Dept. of Civil of Engineering, February 1994, pp 111-129.

Tracy, L.N., R.C. Findlay, F.T. Hsu, J.L. Viau. "Geotechnical Aspects of the Schaghticoke Hydroelectric Project Penstock Replacement". Proceedings of the ASDSO Dam Safety 2000 Conference; Providence, Rhode Island; September 2000.